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FROZEN PACK FRUITS:

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A radio talk prepared by H. C. Diehl, Senior Physiologist, in charge Frozen Pack Laboratory of the Bureau of Plant Industry, U. S. Department of Agriculture, Seattle, Washington, and delivered by John L. Harvey during the Western Farm and Home Hour, Thursday, March 3, 1932, through Station KGO and eight other stations associated with NBC-KGO network, National Broadcasting Company.

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Speak of something good to eat or of a new way to prepare our favorite food and we are all interested. No doubt many of you have read in the papers and the magazines, accounts of the preservation of fruits by the new freezing process and may be interested in a few details regarding their character and usefulness as brought out by the work at our Frozen Pack Laboratory.

Some fruits, such as strawberries, raspberries and loganberries are naturally better adapted for frozen pack than others, and as in the case of strawberries, may be superior in dessert quality when so handled to berries preserved by other methods.

Other fruits may be added to the frozen pack ranks eventually through a choice of varieties or types, especially adapted to freezing preservation, or by improvements in the technique of this method of preservation derived from research and experience.

Some of you will not be surprised to learn that airtight containers, sealed at the time when the fruit is packed, are essential for the retaining of color, flavor and dessert quality in fruits. If, in the future, the air can be exhausted from these containers, so much the better. Fruits will longer retain their original desirable qualities and spoilage will be retarded in such packages, especially while the frozen products are held in the home refrigerator.

For the present, as a general practice, it is probably more satisfactory to keep frozen pack fruits in a partially frozen condition, at least, until you are ready to use the product. It is surprising, however, to find that if good clean material was used in properly preparing the pack and the fruit has been held in frozen storage for at least two months, frozen fruits in airtight sealed containers will keep satisfactorily for several days at ordinary refrigerator temperatures. Experiments have shown that with prolonged frozen storage, the most of the micro-organisms present on fruits and responsible for spoilage are killed, and the product may then be in better condition for distribution through retail channels than when it was originally packed. Of course, no one would handle frozen pack fruits, as if they were canned goods or dry groceries because a cold environment is absolutely essential for the retention of the original quality of the fresh product. More information is needed regarding the best temperature conditions for freezing, handling and distributing frozen pack horticultural products generally but the consumer will not make a mistake, if the frozen pack fruits are handled as one would handle other products of perishable nature, commonly used in the home.

Almost all of the fruits that have been tested so far at the Frozen Pack Laboratory give the best results when they are prepared with sirup, of a concentration depending upon the nature of the fruit, particularly as to acidity,

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and upon the preferences of the consuming public. Fruits packed with dry sugar are more commonly prepared for commercial use at present, but the dessert quality while generally superior to fruits frozen without sugar can often be improved upon by the use of sirup made from the sugar. No less care in grading and preparing fruit for frozen pack should be given than is now common practice in the canning industry. Factors such as fruit maturity, standardized practices, and packing plant sanitation are equally important in both industries.

You may ask the question:- "What frozen pack fruits are now sold or what fruits seem to be so promising that they will probably be available in frozen form in a few years?"

Strawberries, of course, are now preserved in no way with more of the flavor and fragrance of the fresh berry than when frozen-packed, and this is true also of loganberries and raspberries. The latter packed with a 50 per cent sirup, if prepared from firm, ripe, fresh fruit and well handled will make possible the delights of delicious summertime dessert in the dead of winter.

Frozen pack gooseberries and huckleberries in 40 per cent to 60 per cent sirup are ready to use for pies, and will fill the kitchen with the odor of the fresh fruit during baking. Blueberries are most tempting for dessert or pie when frozen with 40 per cent sirup. The ever present apple pie already derives its filling, in some parts of the West, from frozen pack apples, packed in sugar or sirup.

Blackberries and the characteristically flavored black raspberries may soon be had at any time in the year, while the dried or canned prune now has a rival in frozen pack Italian prunes, in naturally rose colored sirup, with the original bloom of the purple fruit unspoiled and with an irresistible eye appeal when served, let us say in pale green dishes.

Frozen pack sour cherries for cobblers? Does not that prospect whet your appetites? Especially, when you visualize the opening of an airtight container which has preserved their natural bright red color, all glossy from the sirup which should cover them.

Persimmons have been frozen for those who like this fruit, especially the softer Japanese persimmons, packed with a light sirup, merely to keep the fruit away from the direct contact with the air. In frozen pineapple, packed with sugar or sirup, the protein-digesting ferment seems to be unharmed by the low temperatures to which the product has been subjected.

Practical difficulties have been encountered in retaining the bright, attractive, natural colors of peaches, apricots and sweet cherries in frozen pack, especially after the containers are opened, and it is not now possible to give these fruits the send-off that we can accord to the berries. However, when we have learned the varieties best suited for frozen pack and have suitably modified our freezing treatment I believe that these fruits will also join the frozen pack family. Certain varieties of freestone peaches, for instance, have already been frozen packed in sirup with high dessert quality, when precautions were taken to prevent discoloration upon exposure to air.

One more product - cranberries: Soon it may be possible to extend your enjoyment of this healthful and delicious fruit beyond the Fall and Winter holiday season, and to permit all year round, if you wish, the use of cranberry sauce and cranberry relish on your table.

I have briefly sketched for you a few facts about frozen pack fruits, of which you will undoubtedly see much more in the near future. Our optimism about frozen pack fruits is, however, tempered with a solid conservatism regarding their immediate commercial status from an investment standpoint or from the viewpoint of preparation and distribution.

The frozen pack industry is young, very young, and there is need for much more technical information, similar to that developed by the canning industry in the last quarter century, and for the results of experience, derived from carefully planned programs of expansion, extending over a period of years.

In the meantime, let us enjoy those frozen pack fruits which are packed and distributed with reasonable success, even today, while early frozen pack history is being made.

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